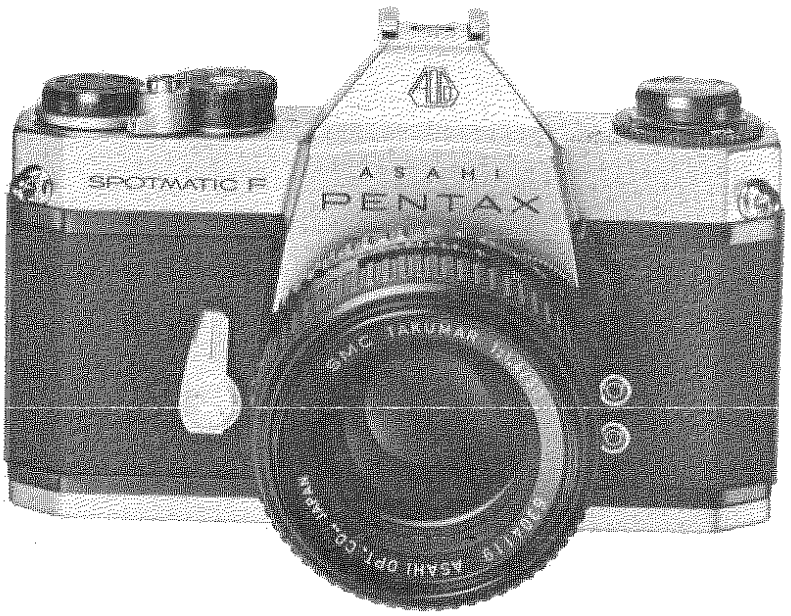
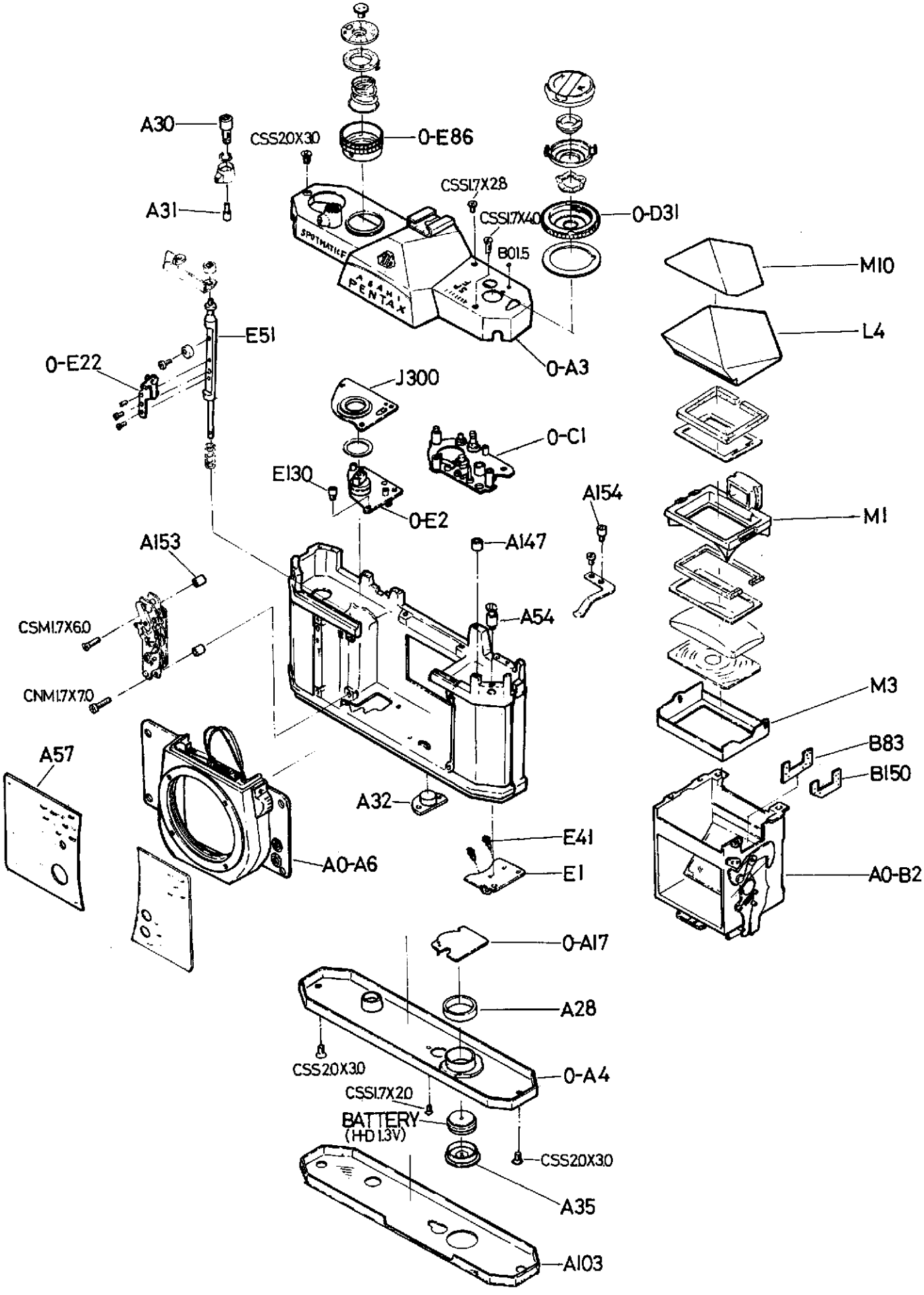
PRODUCT No. 23110

ASAHI PENTAX SP F



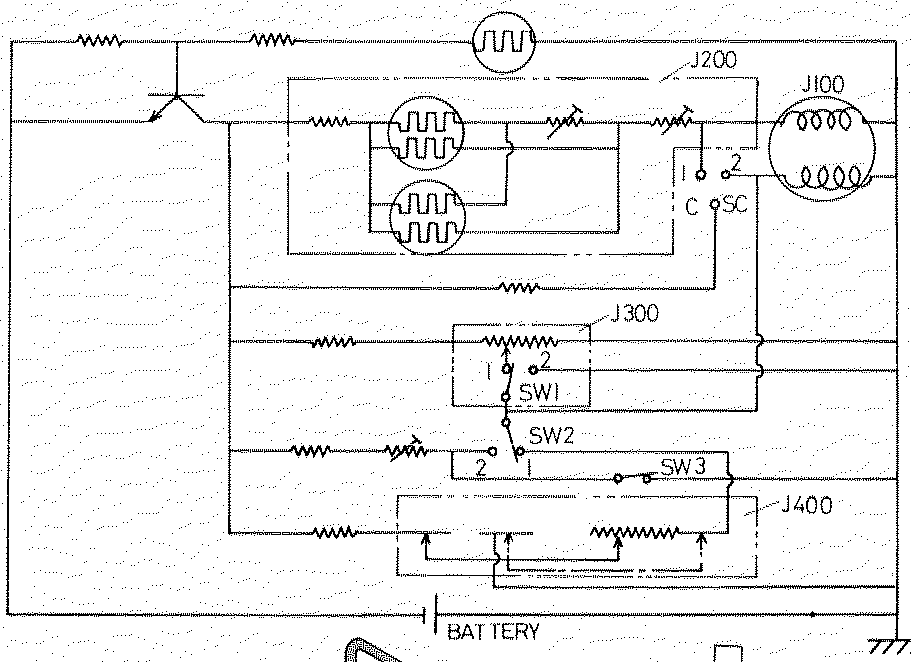
EXPLODED ILLUSTRATION

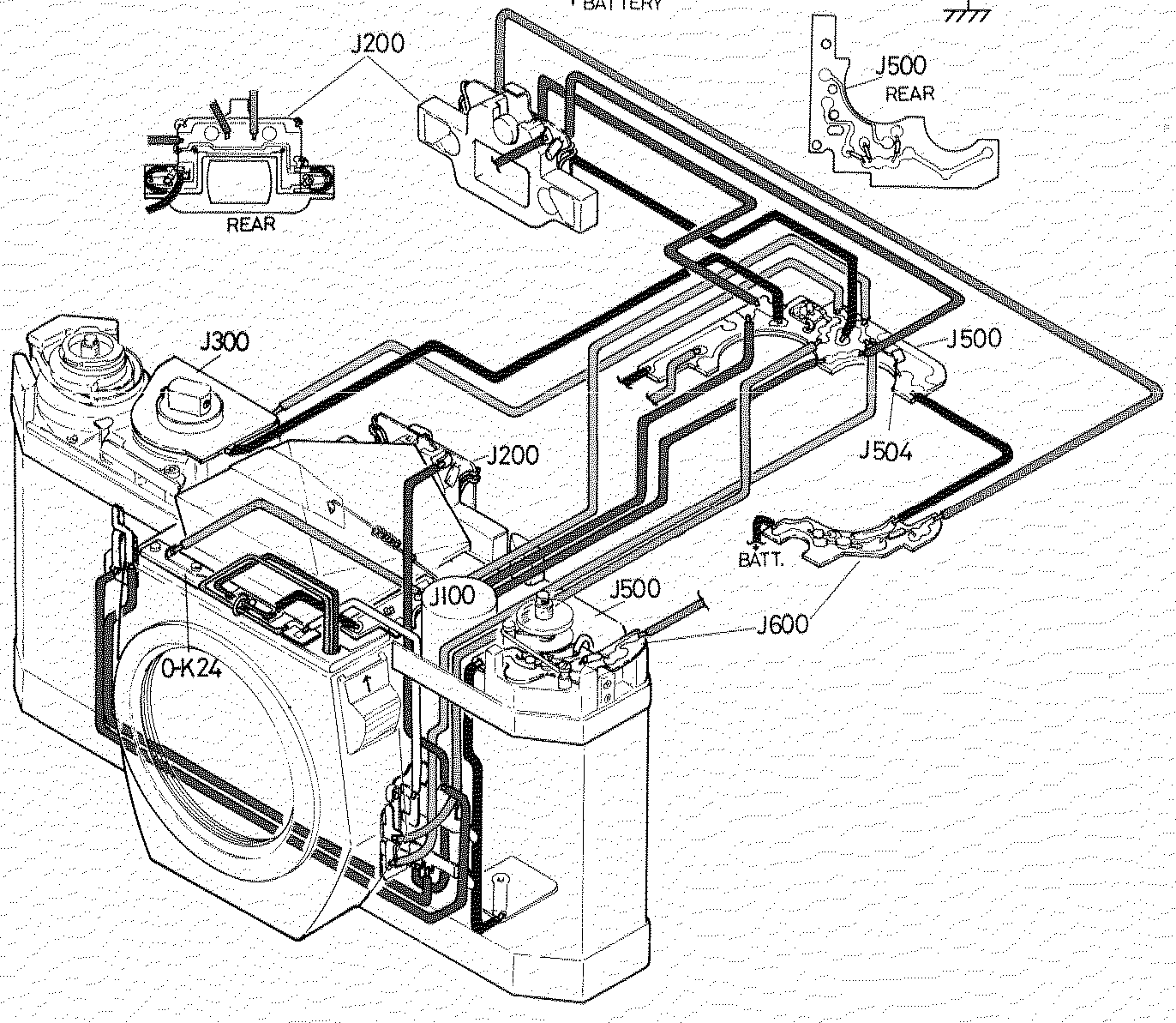


Product No. 23110

ASAHI PENTAX SP F

DISTRIBUTING WIRES





Product No. 23110

ASAHI PENTAX SP F

LIST OF SERVICE PARTS

Product No. 23110
ASAHI PENTAX SP F

Note: 1. The parts with numbers starting '0-' are assembled parts and starting 'A0-' are complete assemblies including '0-' parts and other unit parts.

2. Only the available parts are listed below.

Parts No.	Description	Quantity	Interchangeability
A1	Body proper	1	
0-A2	Back cover assembly (A2, A7, A10, A11, A13, A14, A39 x2, A43 x2, A45 x4, A47 x2, A58, A79, A80, A85, A86)	1	23102-0-01002
0-A3	Top cover assembly (A3, A29, A30, A31, A33, A37, A46, 0-A53, A55, A59, A62, A63, 0-A65, A71, A72, A78, A93, A94, A95, A102, 0-A118, A119, A120, A122, A123, A127, D25, CSS1.7x4.0 x2, CSS1.7x7.0 x2, CSS1.4x1.6 x3, LW13, BO1.2)	1	
0-A4	Bottom cover assembly (A4, A28, A34)	1	
A0-A6	Front cover complete assembly (0-A6, 0-K1, 0-K9, K17, K18, K19, K20, K21, K22, K23, K24, K28, K29, CSS1.4x1.8 x2, CNS1.7x2.0 x2)	1	
0-A6	Front cover assembly (A6, A5, A22, A26, 0-A42, A50, A68, A69, A74, A76, A81, A88, A137)	1	
A8	Back cover key	1	
A9	Back cover key retainer plate	1	23102-01009
A12	Back cover key release plate	1	23111-A12
0-A15	Pressure plate assembly (A15, A21, A48 x2)	1	23102-0-01015

Parts No.	Description	Quantity	Interchangeability
0-A16	Cessette receptacle assembly (A16, A105, A106, A107, A108)	1	23102-0-01016-02
0-A17	Battery contact seat assembly (A17, A18, A19, A27 x2)	1	
A20	Back cover key retainer spring	1	23102-01020
A22	O. S. switch lever retainer	1	23111-A22
A26	Helicoid seat	1	23111-A26
A28	Battery packing	1	
A29	Shutter button seat	1	23117-A29
A30	Shutter button	1	
A31	Shutter button core	1	
A32	Tripod socket	1	
A33	Accessary shoe	1	23111-A33
A35	Battery cap	1	
A36	Strap hook	2	23102-01036
A37	Cover ring	1	23102-01037
0-A42	Synchro terminal assembly (A42, A40, A41)	2	23102-0-01042
A44	Back cover key collar	2	23102-01042
A50	O. S. switch lever shaft	1	23111-A50-02
0-A53	Accessary shoe seat assembly (A53, A64)	1	23108-0-A53-01
A54	Strap hook retainer screw	1	
A55	Button seat retainer spring	1	23111-A55
A56	Body covering, left	1	23111-A56
A57	Body covering, right	1	

Parts No.	Description	Quantity	Interchangeability
A60	Light seal cloth	1	23102-01060
A63	Accessary shoe spring	1	23112-A63
0-A65	Shoe contact spring assembly (A65, B16)	1	23111-0-A65
A68	O. S. switch lever seat	1	23102-01068
A69	O. S. switch lever	1	23111-A69
A71	Guide screw	1	23117-A71
A72	Button seat spring	1	23117-A72
A76	O. S. switch lever spring	1	23111-A76
A81	Front board dust prevention string	1	23102-01081
A82	Light seal string A	1	23102-01082
A83	" " " B	1	23102-01083
A84	" " " C	1	23102-01084
A88	Synchro terminal nut	1	23102-01088
A98	Hole cap	1	23111-A98
A103	Scratch prevention case	1	
A109	Front board adjusting nut	4	23111-A109
A110	" " " "	1	23111-A110
A111	Front board adjusting collar	4	23111-A111
A112	" " " "	1	23111-A112
A115	Pressure plate cover	1	23102-01115
A118	Switch spring	1	23108-A118
A119	Insulation washer	1	23108-A119
A120	Switch pin	2	23108-A120
A121	Insulation collar	1	23108-A121

Parts No.	Description	Quantity	Interchangeability
A122	Top cover light seal cloth	1	23108-A122
A123	Shoe contact spring retainer screw	1	23108-A123
A127	Indication plate	1	23112-A127
A128	Light seal cloth	1	23102-01128
A137	Spring hanger washer	1	23111-A137
A147	Collar	1	
A152	Light seal curtain	2	23111-A152
A153	Self timer collar	2	
A154	Hinge retainer spring screw	1	

Parts No.	Description	Quantity	Interchangeability
A0-B2	Mirror housing complete assembly (B2~B183, except B28 & B66)	1	
0-B2	Mirror housing assembly (B2, B35, B36, B50, B56, B58, B97, B111, B132, B137, B138, B153, B170, B174, B175, B181)	1	23111-0-B2
0-B9	Mirror seat assembly (B9, B10, B11, B12, B13, B37, B45, B47 x2, B48 x2, B55 x2, B62)	1	23111-0-B9
B14-00A B14-00B	Hook plate	1	23111-B14-00A 23111-B14-00B
0-B15	Diaphragm lever C assembly (B15, B157, B160, B167)	1	23111-0-B15
0-B18	Mirror actuator lever assembly (B18, B19, B34, B40, B41, B42, B51 x2, B63, B135, W22)	1	23111-0-B18
0-B20	Curtain actuator lever assembly (B20, B116)	1	23111-0-B20
0-B26	Synchro seat assembly (B26, B16 x3, B17 x3, B23, B24, B25, B52 x12, E16, E18, E157)	1	23111-0-B26
B28	Shutter curtain control plate	1	23102-02028
0-B29	Diaphragm lever A assembly (B29, B107, B143, B155)	1	23111-0-B29
0-B31	Mirror actuator plate assembly (B31, B134)	1	23111-0-B31
0-B38-00A 0-B38-00B 0-B38-00C	Diaphragm lever D assembly (B38-00A, B115, B117, B120) (B38-00B, B115, B117, B120) (B38-00C, B115, B117, B120)	1	 23111-0-B38-00A 23111-0-B38-00B 23111-0-B38-00C
B49	Focus adjusting screw	3	23102-02049
B53	Mirror housing retainer screw	2	23102-02053
B60	Hook plate retainer screw	1	23111-B60

P		Quantity	Interchangeability
B65	Mirror seat spring	1	23111-B65
B66	Mirror restitution spring	1	23102-B66
B69	Curtain actuator lever spring	1	23111-B69
B70	AM diaphragm spring	1	23111-B70-01
B71	Hook plate spring	1	23111-B71
B74	Mirror box light seal plate	1	23111-B74
B75	Light seal curtain	1	23111-B75
B77	Light seal curtain	1	23111-B77
B79	Mirror shock absorber	1	23111-B79
B83	Dust prevention string A	1	
B84	" " " E	1	23111-B84
0-B85	Diaphragm actuator lever assembly (B85, B32, B94, B95, B96, B100 x2)	1	23111-0-B85
0-B88	Hook assembly (B88, B21, B59, B98, B152)	1	23111-0-B88
B91	Hook retainer screw	1	23111-B91
B92	Diaphragm actuator lever screw	1	23111-B92
B93	Diaphragm actuator lever stopper	1	23111-B93
B101	Diaphragm actuator spring	1	23111-B101
B102	Hook spring	1	23111-B102
B103	Diaphragm actuator lever	1	23111-B103
B108	Slide pin	1	23111-B108
B109	Ground glass frame B	1	23111-B109
B113	Diaphragm lever A collar	1	23111-B113
B118	Diaphragm lever D collar	1	23111-B118

Parts No.	Description	Quantity	Interchangeability
B119	Mirror actuator lever stud collar	1	23111-B119
B121	Mirror housing retainer screw	1	23102-B121
B123	Mirror seat roller	1	23111-B123
B126	Hook plate rest	1	23111-B126
B131	Mirror actuator lever retainer screw	1	23111-B131
B133	Mirror actuator lever stopper	1	23111-B133
B150	Dust prevention string	1	
0-B158	Diaphragm lever B assembly (B158, B64, B154)	1	23111-0-B158-01
B161	Diaphragm lever A spring	1	23111-B161
B165	Dust prevention string C	1	23111-B165
B166	Hook plate spring hanger screw	1	23111-B166
B167	Diaphragm lever coupler collar	1	23111-B167
B182	Light seal curtain	1	23111-B182
B183	Switch protection tube	1	23111-B183

Parts No.	Description	Quantity	Interchangeability
0-C1	Top mec. plate assembly (C1, C9, C33, C40, C45, C46, C59, C62, C64, E43, E82 x3, E48, E50, E54, E104, E147, E170)	1	
0-C2	Bottom mec. plate assembly (C2, C29, C48, C50, C51, C53, C106)	1	23102-0-03002
0-C3	Rapid wind lever assembly (C3, C35)	1	23102-0-03003
0-C4	Lever stopper assembly (C4, C65)	1	23111-0-C4
C6	Rapid wind lever retainer spring	1	23102-0-03006
C7	Stopper	1	23111-0-C7
C8	Non-return arm	1	23111-C8
C10	Top take-up spool brim	1	23102-03010
C11	Bottom take-up spool brim	1	23102-03011
	Coupler lever pin adjust seat assembly	1	
0-C12-00A	(C12-00A, C47)		23102-2-03212
0-C12-00B	(C12-00B, C47)		23102-2-03312
0-C12-00C	(C12-00C, C47)		23102-2-03412
0-C12-00D	(C12-00D, C47)		23102-2-03512
0-C12-00E	(C12-00E, C47)		23102-2-03612
0-C13	Coupler lever assembly (C13, C100)	1	23102-0-03013
C14	Rewind actuator lever	1	23102-03014
C15	Coupler lever washer	1	23102-03015
0-C17	Counter dial coupler lever assembly (C17, C30, C31)	1	23102-03017
0-C18	Counter dial actuator lever assembly (C18, C61)	1	23102-0-03018
	Counter dial retchet assembly	1	
0-C19-00A	(C19-00A, C77)		23102-0-03219
0-C19-00B	(C19-00B, C77)		23102-0-03319
0-C19-00C	(C19-00C, C77)		23102-0-03419

Parts No.	Description	Quantity	Interchangeability
0-C20	Counter dial assembly (C20, C68)	1	23102-03020
0-C22	Top 1st gear assembly (C22, C23)	1	23102-0-03022
0-C24	Top 2nd gear assembly (C24, C25)	1	23102-0-03024
C27	Bottom main gear	1	23102-03027
C28	Idling gear	2	23102-03028
0-C34	Rapid wind lever seat assembly (C34, C5 x2, C37 x2, C38 x2, C76, C80, C84 x2)	1	23102-0-03034
	Rapid wind lever shaft assembly	1	
0-C39-00A	(C39-00A, C32, C66 x2, C97, C101)		23102-0-03239
0-C39-00B	(C39-00B, C32, C66 x2, C97, C101)		23102-0-03339
0-C42	Wind up shaft assembly (C42, C21, C26, C43, C44, C85, C86, C93, C94)	1	23102-0-03042
C49	Coupler lever retainer screw	1	23102-03049
C52	Idling gear retainer screw	1	23102-03052
C54	Sprocket shaft	1	23102-03054-02
C56	R button	1	23102-03056
C57	Sprocket	1	23102-03057
C58	Sprocket collar	1	23102-03058
C60	Counter dial actuator lever collar	1	23102-03059
C63	Counter dial coupler lever collar	1	23102-03063
C67	Rapid wind lever collar	1	23102-03067
C69	Counter dial housing	1	23102-03069
C70	Counter dial retainer screw	1	23102-03070

Parts No.	Description	Quantity	Interchangeability
0-C71	Counter dial covering assembly (C71, C90, Set T1. 4x1. 8 x3)	1	23102-0-03071
C72	Mec. plate retainer screw	1	23102-03072
C74	Non-return arm screw	1	23102-03074
C75	Rapid lever shaft nut	1	23102-03075
C82	Counter dial retchet spring	1	23102-03082
C83	Counter dial actuator lever spring	1	23102-03083
C86	Spool spring	1	23102-03086
C87	Rewind actuator lever spring	1	23102-03087
C88	Non-return arm spring	1	23102-03088
C89	Sprocket spring	1	23102-03089
C91	Stopper retainer screw	1	23103-03091
C92	Stopper washer	1	23102-03092
C95	Clutch ring	1	23102-03095
C96	Pin rest retainer plate	1	23102-03096
C105	Coupler pin collar	1	23102-03105
C107	Clutch retainer screw	1	23102-03107
C109	Sprocket retainer	1	23102-03109
C110	Clutch ring retainer collar	1	23102-03110

Parts No.	Description	Quantity	Interchangeability
D3	Turning ring	1	23108-D3
D4	Plate spring	1	23108-D4
0-D8	Rewind knob assembly (D8, D1, D5, D11, D12, D13)	1	23102-0-04008
0-D9	Shaft bearing (D9, D17)	1	23108-0-D9
D10	Rewind shaft	1	23108-D10
D16	Flat nut	1	23108-D16
D19	Rewind shaft collar	1	23102-D19
D20	Rewind shaft collar plate	1	23102-D20
D25	Click spring	1	23108-D25
0-D31	Film type dial assembly (D31, D6, D32, D34)	1	
D38	Rewind light seal plate	1	23108-D38

Parts No.	Description	Quantity	Interchangeability
E1	Curtain shaft seat	1	
0-E2	Shutter seat assembly (E2, E17, E20, E21, E42, E57, E58, E99 x2, SM1.4x2.0 x2, SM1.4x2.2, CNM1.7x3.5 x2)	1	
0-E3	Bottom shaft rest assembly (E3, E107, E108, E169)	1	23111-0-E3
E4	Release plate	1	23102-05004
	High speed lever assembly	1	
0-E6-00A	(E6-00A, E5, E52, E53, E111, E120, E122, Set F1.4x2.5)		23102-0-05005
0-E6-00B	(E6-00B, E5, E52, E53, E111, E120, E122, Set F1.4x2.5)		23102-1-05005
0-E6-00C	(E6-00C, E5, E52, E53, E111, E120, E122, Set F1.4x2.5)		23102-2-05005
E7	Bulb lever	1	23111-E7
E8	1st curtain checker arm	1	23102-05008
0-E9	Pinion coupler lever assembly (E9, E142)	1	23102-0-05009
E10	Bounce stopper lever	1	23102-05010
	High speed cam assembly	1	
0-E19-00A	(E19-00A, E47)		23102-0-05219
0-E19-00B	(E19-00B, E47)		23102-0-04319
0-E22	Shutter actuator plate A assembly (E22, E90, E140, E145)	1	
0-E26	X contact piece assembly (E26, B16, B17, B52 x4, E24, E25, E27)	1	23102-0-05026
E27	X contact piece insulator	1	23102-05027
E30	Spill	1	23102-05030
E31	Spill spring	1	23102-05031
E32	Spill receptacle plate	1	23102-05032
E33	Top intermediate gear	1	23103-05033

Parts No.	Description	Quantity	Interchangeability
0-E34	Bottom intermediate gear assembly (E34, E49)	1	23102-0-05034
0-E35	Top selector gear assembly (E35, E15, E78, E81, E85, E89)	1	23111-0-E35
0-E36	Bottom selector gear assembly (E36, E11, E12, E80)	1	23111-0-E36
0-E37	Coupler gear assembly (E37, E113)	1	23102-0-05037
E39	Coupler pinion	1	23102-05039
E40	Worm wheel	2	23102-05040
E41	Worm	2	23102-05041
0-E44	Speed dial assembly (E44, E124)	1	23102-0-05044
0-E45	Speed selector retainer assembly (E45, E77, E125)	1	23102-0-05045
E51	Shutter rod	1	
0-E61	1st curtain pinion shaft assembly (E61, E38)	1	23103-0-05061
0-E62	2nd curtain pinion shaft assembly (E62, E38)	1	23103-0-05062
E66	1st curtain shaft	2	23102-05066
E67	1st curtain roller	2	23102-05067
E68	2nd curtain roller	2	23102-05068
E73	Curtain shaft roller A	3	23102-05073
E74	" " " B	2	23102-05074
E75	" " " C	1	23103-05075
E76	" " " D	1	23102-05076
0-E86	Speed dial knob assembly (E86, E56, CRS1. 4x2. 5 x3)	1	

Parts No.	Description	Quantity	Interchangeability
E91	Speed dial retainer screw	1	23102-05091
0-E92	Intermediate gear retainer screw assembly (E92, E138)	1	23102-0-05092
E95	1st curtain checker arm screw	1	23102-05095
E96	Coupler lever spring hanger	1	23102-05096
E97	'Cocked' indicator retainer screw	1	23102-05097
E101	Bounce stopper screw	1	23102-05101
E102	Pinion shaft retainer screw	1	23102-05102
E103	Bulb lever nut	1	23102-05103
E105	Coupler gear retainer screw	1	23102-05105
E106	Eccentric collar	1	23102-05106
E109	Bounce stopper adjust screw	1	23102-05109
E110	Spill spring retainer screw	1	23102-05110
E111	High speed lever adjust nut	2	23102-05111
E112	Coupler pinion screw	1	23102-05112
E114	Speed dial knob spring	1	23102-05114
E117	Shutter rod spring	1	23102-05117
E118	1st curtain checker arm spring	1	23102-05118
E119	Bulb lever spring	1	23102-05119
E121	Pinion coupler lever spring	1	23102-05121
E123	Bounce stopper spring	1	23102-05123
0-E128	Set of 1st shutter curtain assembly (E128, E23, E59, E63, E69, E70, E115, E126 x2)	1	23102-0-05128
0-E129	Set of 2nd shutter curtain assembly (E129, E23, E60, E64, E65, E69, E70, E71, E72, E116, E127 x2)	1	23102-0-05129

Parts No.	Description	Quantity	Interchangeability
E130	Shutter seat plate screw A	1	
E132	Selector pin collar	1	23102-05132
E134	Exposure index selector disc	1	23108-05134
E137	Release plate installing nut	1	23102-05137
E140	Shutter actuator plate B	1	23102-05140
E141	Resistor turning ring	1	23102-05141
E143	Exposure index selector disc retainer screw	1	23102-05143
E148	Shutter rod guide collar	1	23102-05148
E149	Pallet release protection rubber	1	23102-05149
E163	Retainer	1	23111-E163
E164	Lubrication tube	1	23111-E164
E167	E clip	1	23102-05167
0-F6	Pallet release lever top B assembly (F6, F18)	1	23102-0-06006
0-F8	Governor actuator rod assembly (F8, F3, F4, F11)	1	23102-0-06008
0-F9	Pallet release rod assembly (F9, F7)	1	23102-0-06009
F10	Pallet release lever collar	1	23102-06010
F14	Pallet release rod collar	1	23102-06014
F15	Governor actuator rod spring	1	23102-06015
G100	Slow speed governor assembly	1	23102-0-07001

Parts No.	Description	Quantity	Interchangeability
H100	Self-timer governor assembly	1	23102-0-08001
H46	Self-timer set lever	1	23108-H46
H49	Joint	1	23102-08049
H50	Self-timer set lever retainer screw	1	23102-08050
J100	Ammeter	1	
J200	CdS cell assembly	1	
J300	Variable resistor	1	
J500	P. C. board	1	
J600	Power source P. C. board assembly (J601, J606, J607, J608)	1	
L1	Mirror	1	23111-L1
L2	Fresnel lens	1	23102-12002
L3	Ground glass	1	23102-12003
L4	Penta prism	1	
0-L5	Magnifier front element assembly (L5, L6)	1	23111-0-L5
M1	Prism seat	1	
M3	Ground flass grame A	1	
M4	Ground glass retainer	2	23102-02004
M5	Ground mask	1	23102-02005
M6	Prism retainer plate	1	23102-02006

Parts No.	Description	Quantity	Interchangeability
M8	Prism side retainer plate	1	23102-02008
M9	Prism retainer spring	2	23102-02067
M10	Prism protector	1	
M11	Magnifier cushion	2	23102-02078
M12	Dust prevention string C	1	23111-M12
M13	" " " D	1	23102-02073
M17	Prism seat retainer screw	1	23111-M17
M18	Ground glass frame retainer screw	2	23111-M18

LIST OF STANDARD PARTS

Product No. 23110
ASAHI PENTAX SPF

Small screws:

Description	Surface treatment	Position of use	Quantity
FM1.2 x 1.2	Nickel	E31, C1	1
FM1.4 x 1.6	Nickel	G2, G13	1
		G21, G14	1
Set T1.4 x 1.8	Black nickel	C69, C71	3
Set T1.4 x 2.2	Black nickel	E1, E41	2
Set T1.4 x 4.0	Nickel	E22, E51	1
Set T1.7 x 2.5	Nickel	F9, F10	2
Set F1.4 x 2.5	Nickel	E111, E6	1
		E111, F2	1
Set F1.4 x 4.0	Nickel	E51	1
Set F1.7 x 4.0	Nickel	A1	1
Set F1.7 x 4.5	Black nickel	M1	2
CNS1.4 x 1.4	Black nickel	E17, E42	2
CNS1.4 x 2.8	Nickel	E45, E35	1
CNS1.7 x 2.0	Black nickel	B10, B2	3
		E22, E51	2
		A6, K24	1
CNS1.7 x 2.5	Black nickel	B26, B2	2
CNS1.7 x 3.5	Black nickel	J100, M1	2
CNS1.7 x 4.0	Black nickel	E106, E51	1
CNM1.4 x 1.6	Black nickel	A22, A6	2
		D1, D8	2
CNM1.4 x 2.0	Nickel	G1, A1	2
		J308, E130	1
		J308, E131	2

Description	Surface treatment	Position of use	Quantity
CNM1.7 x 2.5	Black nickel	A20, A1	1
		C1, A1	1
		C2, A1	1
		E26, E27, A1	2
		H100, A153	1
CNM1.7 x 3.0	Black nickel	D9, A1	2
		A16,A108,A1	2
		H1, A153	1
CNM1.7 x 3.5	Black nickel	A1, B2	1
		B133, B2	1
		C7, C41	1
		H1, A1	1
		E58, E57	2
CNM1.7 x 5.0	Black nickel	B2,M1	3
CNM1.7 x 10	Black nickel	J201, M1	2
CSS1.4 x 1.6	Black nickel	A3, A62	3
CSS1.4 x 1.8	Black nickel	J401, J402	1
		J417, J409	2
CSS1.4 x 2.0	Black nickel	A68, A6	2
		E57, E21, E20	2
CSS1.7 x 2.0	Black nickel	A9, A44, A1	2
CSS1.7 x 2.2	Nickel	A32, A4	1
	Black nickel	A8, A12	2
CSS1.7 x 2.5	Black nickel	A13, A1	4
		B35, B2	2
		B36, B2	2
CSS1.7 x 2.8	Nickel	A3, A1	1
CSS1.7 x 3.0	Black nickel	E2, A1	1
CSS1.7 x 4.0	Nickel	A3, A147, A1	1
	Black nickel	A33, A53, A3	2
CSS1.7 x 7.0	Black nickel	A33, A53, A3	2
CSS2.0 x 3.0	Nickel	A4, A1	2
CSM1.4 x 2.2	Black nickel	E2, E42	3

Description	Surface treatment	Position of use	Quantity
CSM1.4 x 4.0	Black nickel	H47, A6	2
CSM1.7 x 2.5	Black nickel	E3, A1	1
		H100, A153	1
CSM1.7 x 3.0	Black nickel	E1, A1	2
		E2, A1	1
CSM1.7 x 3.5	Black nickel	A32, A1	2
		C39, C59	1
		C39, C62	1
		C43, A1	3
CSM2.0 x 3.5	Black nickel	C4, A1	2

Washers:

Description	Material	Thickness	Position of use	Quantity
W1	Steel	0.1	C17, C30	1
W2	Phosphor bronze	0.03, 0.05, 0.1	A6, K19	4
	Phosphor bronze	0.05	E9, E108	1
W3	Phosphor bronze	0.2	J100, M1	2
			C92, C7	1
	Phosphor bronze	0.5	J201, M1	2
	Steel	0.6	B91	1
W4	Steel	0.1	C17, C31	1
	Phosphor bronze	0.25	G7	1
W6	Steel	0.02, 0.03	E8, E95	1
	Steel	0.1, 0.2	E3, E75	1
			E67, E167	1
			E73, E167	1
W7	Phosphor bronze	0.7	E51	1
W8	Phosphor bronze	0.1	B137	1
	Steel	0.2	C62, C63	1
	Phosphor bronze	0.05 – 0.15	A50	1
W9	Brass	0.4	C51, C52	1
W17	Steel	0.2	C10, C86	1
			C86, C42	1
W22	Phosphor bronze	0.15	B63	1

Description	Material	Thickness	Position of use	Quantity
W23	Phorphor bronze	0.2	E42, E58	1
W25	Bakelite	0.4	C11, C27	1
W27	Phosphor bronze	0.02 – 0.05	E10, E101	1
	Phosphor bronze	0.01 – 0.15	F1, F12	1
W28	Steel	0.4	C54	1
	Phosphor bronze	0.03 – 0.1	K18, K19	1
W30	Celluloid	0.4	C56, A4	1
W31	Steel	0.4	E10, A1	1
W38	Phosphor bronze	0.1 – 0.3	E44, E58	1
W44	Phosphor bronze	0.2	C27	1
W50	Phosphor bronze	0.4	C47	1
W79	Phosphor bronze	0.03	C11	1

Lock washers:

Description	Material	Position of use	Quantity
LW10	Steel	B37	1
		B132	1
		F7	1
		H52	1
LW13	Steel	B58	1
		B160	1
		B111	1
		B137	1
		C54	1
		E51	1
		E57	1
		E60	1
		E108	1
LW20	Steel	C50	1

Balls:

Description	Material	Diameter	Position of use	Quantity
BO1.2	Steel	1.2 mm	A29	1
BO1.5	Steel	1.5	A3	1

TECHNICAL REPORT
テクニカル リポート

ASAHI PENTAX SPF (Product No. 23110)

Characteristic features

1 Ammeter

2 Linear and level adjustments of CdS photo-cells

3 Photo - SW

特 徴

1. メーター

2. Cds特性の直線性とレベル調整

3. フォトスウィッチ

1. Ammeter (J100)

It should be considered as an differential Ammeter involving two ammeters in one unit.

Three lead wires of Ammeter (J100) are connected each to Ground (red), CdS (blue) and VR (yellow).

The needle of Ammeter (J100) comes just in the middle when the same current value flows in both CdS and VR side.

1. メーター(J100)

2個のメーターが1個に収められている差動型メーターである。

3本のリード線はそれぞれアース(赤)、Cds(青)、VR(黄)に接続している。

Cds側とVR側に同じ電流が流れた時にメーターの針が真中をさす様になっている。

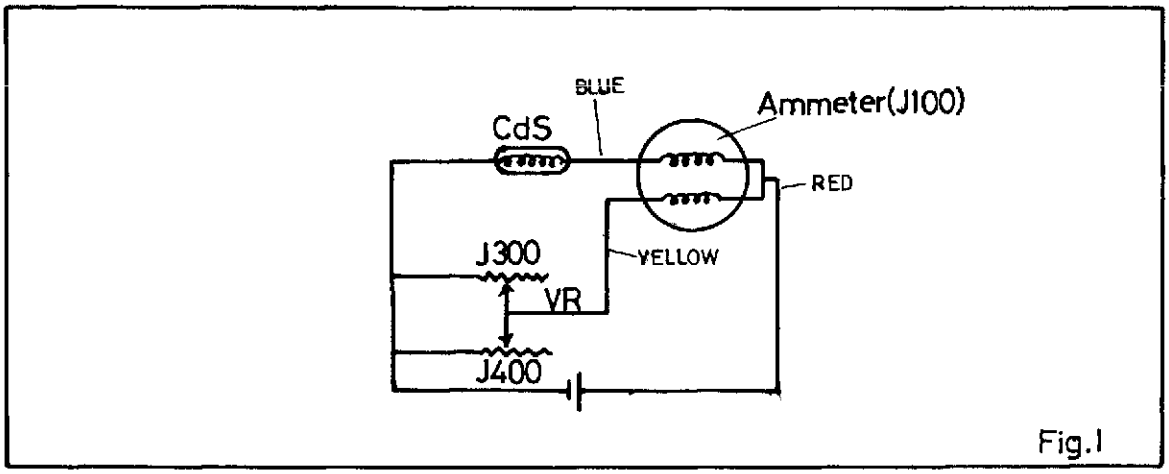


Fig.1

When the current value of CdS side becomes larger than VR side, the needle of Ammeter (J100) goes up.

On the contrary, in case of larger current value in VR side, the needle of Ammeter (J100) goes down.

Cds側の電流がVR側より大きくなると、メーターの針は上にあがり、逆に、VR側の電流が大きいと針は下に下がる。

2. Linear and level adjustments of CdS photo-cells.

(A) Linear adjustment (Full aperture metering)

Adjust high EV (EV16) with left variable resistor and low EV (EV12, EV8) with right one.

2. Cds特性の直線性とレベル調整

(A)直線性調整(開放測光)

高輝度(EV16)を左側の可変抵抗を利用し、低輝度(EV 12、EV 8)を右側の可変抵抗を利用して調整する。

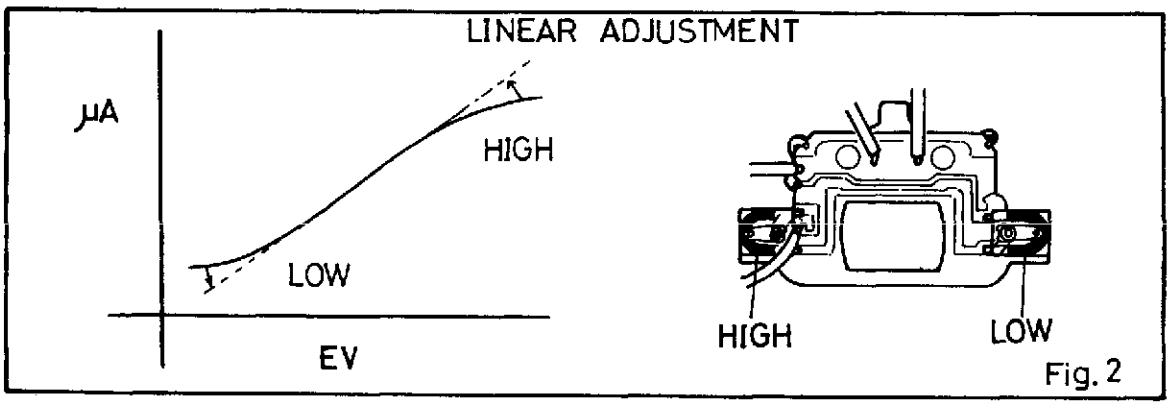


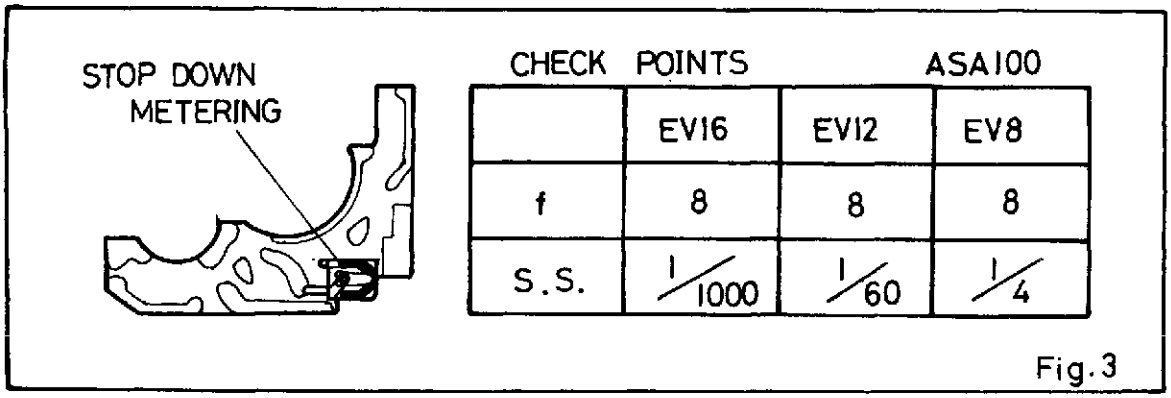
Fig. 2

(Stop down metering)

Adjust the needle indication with variable resistor in Fig. 3.

(絞り込み測光)

絞り込み測光調整はFig 3 の可変抵抗を利用して行なう。



	EV16	EV12	EV8
f	8	8	8
S.S.	1/1000	1/60	1/4

Fig. 3

(B) Level adjustment

When the needle of Ammeter (J100) points at within allowances in each measuring point, no adjustment is necessary.

NOTE: IT SHOULD NEVER BE ADJUSTED WHEN THE NEEDLE OF AMMETER (J100) INDICATES WITHIN ALLOWANCES

However, when the needle points at lower (or higher) beyond allowances, put fixed resistor (J504) of proper Values on CdS (or VR) side.

(B) レベル調整

各々の測光点でメーターの針が許容範囲内にあれば調整の必要はない。

注意：メーターの指示が許容範囲内にあればこの調整の必要はない。

しかし、メーターの針が許容範囲をこえて下に下がっている(又は上がっている)時は、適当な抵抗値の固定抵抗(J504)をCds側(又はVR側)にとりつける。

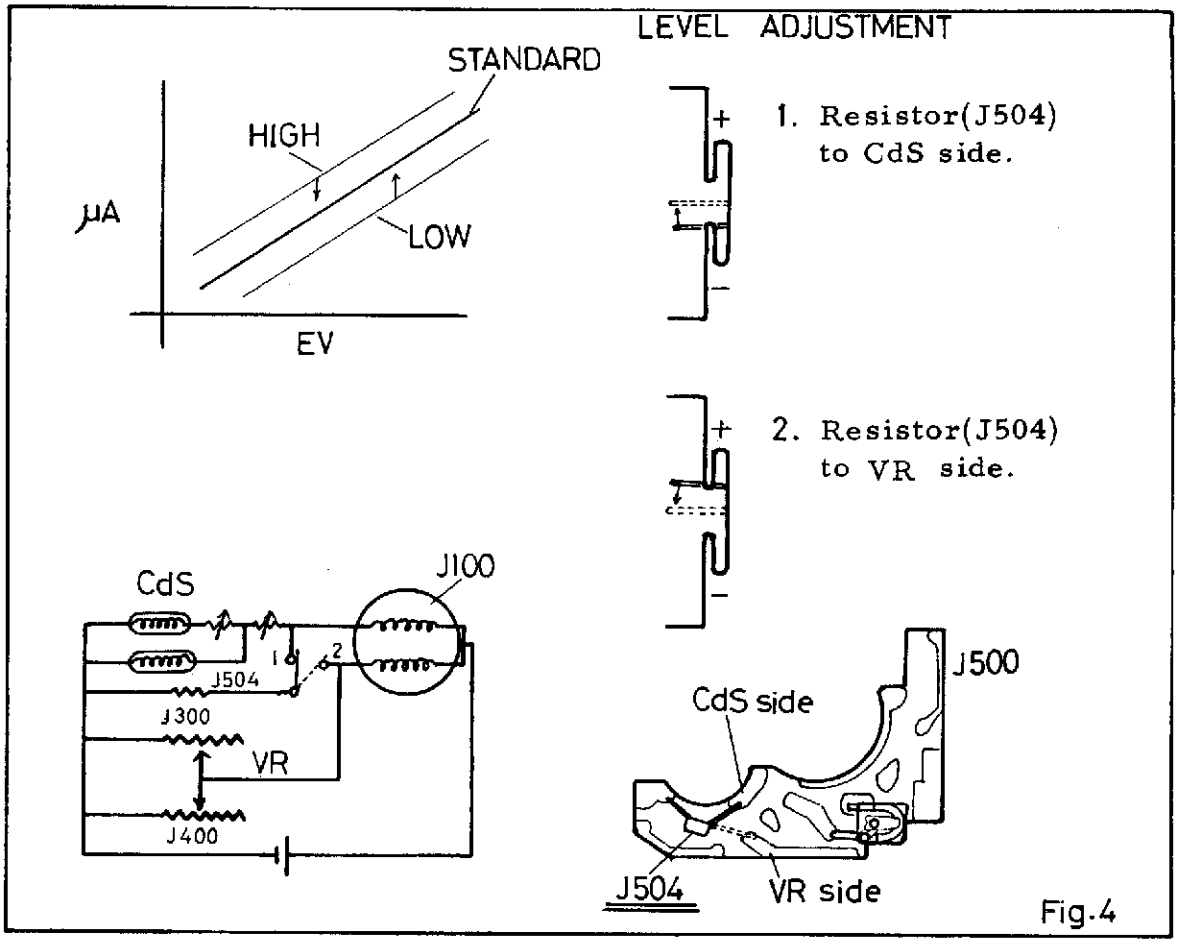


Fig.4

Ten kinds of fixed resistors (J504) are used.

114 = 110 KΩ, 134 = 130KΩ, 154 = 150KΩ, 164 = 160KΩ,
184 = 180 KΩ, 224 = 220KΩ, 274 = 270KΩ, 394 = 390KΩ,
564 = 560 KΩ, 115 = 1.1MΩ.

10種類の固定抵抗(J504)が使われている。左記参照。

3. Photo - SW

Electric current stops flowing under EV2 condition by function of photo-SW.

It can be checked with circuit tester as shown in Fig. 5.

No conductivity is shown under EV2 in the viewfinder and it should be conductive in brighter condition than EV2.

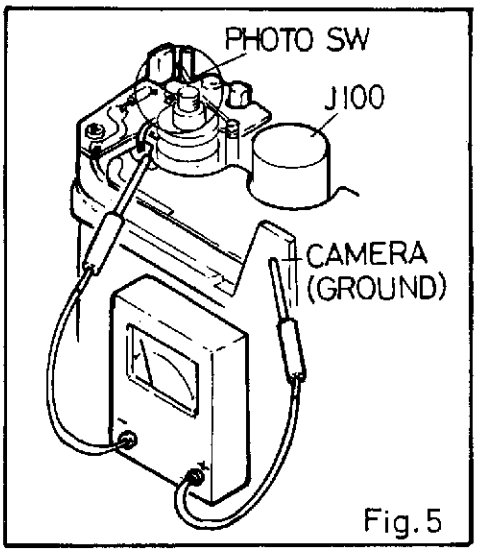


Fig. 5

3. フォトスウィッチ

電流はEV2以下ではフォトスウィッチの働きによって止まる様になっている。

Fig. 5 に示されている様にフォトスウィッチはサーキットテスターでチェック出来る。EV2以下では導通がなく、EV2以上で導通がある。